In a particular embodiment of the present invention, the compounds of the formula (V) are the following species:

		R ¹ E R ² >		B R						
$R^3 D^K$ (V)										
В	D	E	R¹	R²	R ³	R ⁴	RS	R		
0	0	0	Me	н	Н	H	Mo	Me		
0	0	0	i-Pr	Н	H	H	Me	Me		
0	0	0	Ph	Н	Н	Н	Me	Me		
0	0	0	Me	Me	Н	H	Me	Me		
0	0	O	<i>i</i> -Pr	Me	Н	H	Me	Me		
0	0	0	Ph	Me	H	Н	Me	Me		
O	0	0	Me	Ħ	Me	H	Me	Me		
0	0	0	í-Pr	Ħ	Me	H	Me	Me		
0	0	0	Ph	Н	Me	H	Me	Me		
0	0	0	Me	H	H	Me	Me	Me		
0	0	0	i-Pr	н	Н	Me	Me	Me		
0	0	0	Ph	H	H	Me	Me	Me		
0	0	0	Me	Н	CH ₂ Ph	H	Me	Me		
0	0	0	i-Pr	H	CH₂Ph	H	Me	Me		
0	0	0	Ph	H	CH ₂ Ph	H	Me	Me		
CH ₂	0	0	Me	H	H	H	Me	Me		
CH ₂	0	0	i-Pr	H	н	н	Me	Me		

		$R^1 > E > R^2 > $	OH OH	B R	5			
			R ³ D	•	•	V)		
В	D	E	R'	R²	R ³	K ₄	Rs	R®
CH ₂	0	0	Ph	Н	Ħ	H	Me	Me
CH ₂	0	0	Me	Me	Н	Н	Me	Me
CH ₂	0	Ö	i-Pr	Me	н	Н	Me	Me
CH ₂	0	0	Ph	Me	Ĥ	H	Me	Me
CH ₂	0	0	Me	H	Me	H	Me	Me
CH ₂	0	0	/-Pr	H	Me	H	Me	Me
CH ₂	0	0	Ph	Н	Me	H	Me	Me
CH ₂	0	Ö	Me	Н	Н	Me	Me	Me
CH ₂	0	0	i-Pr	Н	Н	Me	Me	Me
CH ₂	0	0	Ph	н	Н	Me	Me	Me
CH ₂	0	0	Me	Н	CH₂Ph	H	Me	Me
CH ₂	0	0	i-Pr	Н	CH₂Ph	H	Me	Me
CH ₂	0	0	Ph	н	CH₂Ph	Н	Me	Me
CH ₂	CH ₂	0	Ph	H	CH₂Ph	Н	Me	Me
CH ₂	CH ₂	0	Me	H	Н	H	Me	Me
CH ₂	CH ₂	O	i-Pr	H	Н	Н	Me	Me
CH ₂	CH ₂	0	Ph	H	Н	H	Me	Me
CH ₂	CH ₂	0	Me	Me	Н	Ħ	Me	Me
CH ₂	CH ₂	0	i-Pr	Me	Н	H	Мо	Me

		R ¹	OH	B R				
		R ²	R^3D	`R ⁴	(V)		***************************************
В	D	E	R¹	R²	R,	R4	R ⁵	\mathbf{R}^{s}
CH ₂	CH ₂	0	Ph	Me	H	Н	Me	Me
CH ₂	CH ₂	0	Me	H	Me	H	Me	Me
CH ₂	CH ₂	0	i-Pr	H	Me	H	Me	Me
CH ₂	CH ₂	0	Ph	н	Me	H	Me	Me
CH ₂	CH ₂	0	Ме	Н	H	Me	Me	Me
CH ₂	CH ₂	0	i-Pr	H	н	Me	Ме	Me
CH ₂	CH ₂	0	Ph	Н	Н	Me	Me	Me
CH ₂	CH ₂	0	Me	H	CH₂Ph	Н	Me	Me
CH ₂	CH ₂	0	i-Pr	Н	CH₂Ph	H	Me	Me
CH ₂	CH ₂	0	Ph	H	CH₂Ph	H	Me	Me
CH ₂	CH ₂	0	Ph	н	CH₂Ph	H	Me	Me
CH ₂	0	CH ₂	Me	H	Н	H	Me	Me
CH ₂	0	CH ₂	i-Pr	н	H	H	Me	Me
CH ₂	0	CH ₂	Ph	Н	H	H	Me	Me
CH ₂	0	CH ₂	Me	Me	н	H	Me	Me
CH ₂	0	CH₂	i-Pr	Me	Н	Н	Me	Me
CH ₂	0	CH ₂	Ph	Me	H	H	Me	Me
CH ₂	0	CH₂	Me	H	Me	H	Me	Me
CH ₂	O	CH ₂	í-Pr	H	Mc	Н	Me	Me

$ \begin{array}{c c} R^1 & \text{OH} \\ E & R^5 \\ R^2 & R^3 & R^4 \end{array} $ (V)											
В	D	E	R	R²	R³	R ⁴	R ⁵	R			
CH ₂	0	CH ₂	Ph	Ħ	Me	H	Me	Me			
CH ₂	0	CH₂	Me	H	Н	Me	Me	Me			
CH ₂	0	CH ₂	í-Pr	H	H	Me	Me	Me			
CH ₂	0	CH ₂	Ph	Н	H	Me	Me	Me			
CH₂	0	CH ₂	Me	H	CH ₂ Ph	Ħ	Me	Me			
CH ₂	0	CH ₂	<i>i-</i> Pr	Н	CH ₂ Ph	H	Me	Me			
CH ₂	0	CH ₂	Ph	H.	CH ₂ Ph	H	Me	Me			

In a sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

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 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 ($X = O_r NR^8$ or S).

 R^1 , R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 , R^9 , R^{10} , R^{12} , R^{13} , R^{14} , R^{15} , R^{15} , R^{17} , R^{18} and R^{19} are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfanyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphinyl, carboxylic acid, amide cate, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^2 (X = O, NR^8 or S).

R₁ and R₂, R₂ and R₃, R₃ and R₄, R₄ and R₅ and R₅ and R₆ can also each be comprised of one or two CR₇R₈ groups, connected by a tether, selected independently from groups that include CR₇R₈, CR₇R₈CR₇R₈, CR₇^mCR₆, CR₇R₈O and CR₇R₈NR₇.

The dotted line indicates the presence of either a single or double bond;

B is selected from the groups that include CR7R8, O, S or NR7;

G is selected from the groups that include OR7, NR7R8 or SR7.

In another sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^{I} is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, aikaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^{7} (X = O, NR^{8} or S).

R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R⁹, R¹⁰, R¹², R¹³, R¹⁴, R¹⁵, R¹⁵, R¹⁷, R¹⁸ and R¹⁹ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfanyl, sulfanyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkearbonyl, carbonyl, balide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = 0, NR⁸ or S);

R₁ and R₂, R₂ and R₃, R₃ and R₄, R₄ and R₅ and R₅ and R₆ can also each be comprised of one or two CR₇R₈ groups, connected by a tether, selected independently from groups that include CR₇R₆, CR₇R₈CR₇R₆, CR₇^mCR₆, CR₇R₈O and CR₇R₆NR₇; and

The dotted line indicates the presence of either a single or double bond;

B is O;

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Gis OR7.

In another sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S).

R¹, R², R³, R⁴, R⁵, R⁶, R⁵, R⁸, R⁸, R⁹, R¹⁰, R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyamo, azide, phosphonyl, phosphinyl, phosphoryl, phosphinyl, carbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² (X = O, NR³ or S).

R₁ and R₃, R₂ and R₃, R₃ and R₄, R₄ and R₅ and R₅ and R₆ can also each be comprised of one or two CR₇R₈ groups, connected by a tether, selected independently from groups that include CR₇R₈, CR₇R₆CR₇R₈, CR₇=CR₈, CR₇R₈O and CR₇R₈NR₇.

The dotted line indicates the presence of either a single or double bond;

B is O:

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G is NR⁷R⁸.

In another sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^{T} is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halido, a residue of a natural or synthetic amino acid, or carbohydrate or XR^{T} (X = O, NR^{S} or S).

R¹, R², R³, R⁴, R⁵, R⁵, R⁵, R⁷, R⁸, R⁹, R¹⁰, R¹², R¹³, R¹⁴, R¹⁵, R¹⁵, R¹⁷, R¹⁸ and R¹⁹ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl,

sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^2 (X = 0, NR^8 or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R³, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷; and

The dotted line indicates the presence of either a single or double bond;

B is O;

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G is SR7.

In another sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or produce is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkoarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^2 (X = O, NR^8 or S).

R¹, R², R³, R⁴, R³, R6, R², R8, R², R¹0, R¹2, R¹3, R¹4, R¹5, R¹6, R¹7, R¹8 and R¹0 are selected independently from the groups that include hydrogen, alky1, alkeny1, alkyny1, cycloalky1, cycloalkeny1, ary1, alkary1, ary1alky1, heterocyclic, sulfony1, sulfamy1, sulfamy1, sulfamy1, sulfamy1, sulfamy1, phosphory1, phosphory1, phosphory1, phosphory1, phosphory1, phosphory1, phosphory1, phosphory1, carbony1, halide, a residue of a natural or synthetic amino acid, or carbobydrate or XR² (X = O, NR8 or S).

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷.

The dotted line indicates the presence of either a single or double bond;

B is CR7R8:

 GOR^{7} .

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In another sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 \mathbb{R}^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or \mathbb{XR}^7 (X = O, NR⁸ or S):

R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are selected independently from the groups that include hydrogen, alkyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfanyl, sulfanyl, sulfanyl, phosphoryl, pho

 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^5 and R^6 can also each be comprised of one or two CR^7R^8 groups, connected by a tether, selected independently from groups that include CR^7R^8 , $CR^7R^8CR_7R^8$, $CR^7=CR^8$, CR^7R^8O and $CR^7R^8NR^7$; and

The dotted line indicates the presence of either a single or double bond;

B is CR7R8;

G is NR7R8.

In another sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

R¹ is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide,

a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphinyl, carboxyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² (X = O, NR⁸ or S).

10 R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

The dotted line indicates the presence of either a single or double bond;

15 B is CR⁷R⁸;

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G is SR7.

In another sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or produig is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R⁹, R¹⁰, R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

R₁ and R₂, R₂ and R₃, R₃ and R₄, R₄ and R₅ and R₅ and R₆ can also each be comprised of one or two CR₇R₈ groups, connected by a tether, selected independently from groups that include CR₇R₈, CR₇R₆CR₇R₈, CR₇=CR₈, CR₇R₈O and CR₇R₈NR₇;

The dotted line indicates the presence of either a single or double bond;

B is S:

S

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G is OR?

In another sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^{1} is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^{7} (X = O, NR^{8} or S);

R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹⁰, R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfanyl, sulfanyl, sulfanyl, sulfanyl, sulfanyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² CX = O. NR⁸ or Si:

R¹ and R², R² and R³, R³ and R⁴, R⁶ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR²R⁸ groups, connected by a tether, selected independently from groups that include CR²R⁵, CR²R⁸CR²R³, CR²=CR⁵, CR²R⁶O and CR²R⁵NR²;

The dotted line indicates the presence of either a single or double bond;

B is S:

Gis NR R8.

In another sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or product is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfanyl, sulfanyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphinyl, phosphinyl, carboxylic acid, aride, carbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = 0, NR⁸ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

The dotted line indicates the presence of either a single or double bond;

B is S;

S

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G is SR?.

In another sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^{I} is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^{T} (X = O, NR^{S} or S);

R¹, R², R³, R⁴, R³, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹⁰, R¹¹, R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl,

sulfanyl, sulfanyl, sulfanonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = 0. NR⁸ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁵CR⁷R², CR⁷=CR⁸, CR⁷R⁶O and CR⁷R⁸NR⁷;

The dotted line indicates the presence of either a single or double bond;

B is NR7;

S

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Gis OR7.

In another sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R¹, R², R³, R³, R³, R6, R², R8, R9, R¹9, R¹0, R¹2, R¹3, R¹4, R¹5, R¹6, R¹7, R¹8 and R¹8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfanyl, sulfanyl, sulfanyl, phosphonyl, phosphonyl, phosphonyl, phosphonyl, phosphonyl, phosphonyl, phosphonyl, carbonyl, alide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² (X = 0, NR³ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

The dotted line indicates the presence of either a single or double bond;

B is NR?:

G is NR7R8.

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In another sub-embodiment, a structure of the formula (VI) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

R¹, R², R³, R⁴, R⁵, R⁶, R⁷, R⁸, R⁹, R¹⁰, R¹², R¹³, R¹⁴, R¹⁵, R¹⁶, R¹⁷, R¹⁸ and R¹⁹ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfinyl, sulfinyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² (X = O, NR⁸ or S):

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R6 can also each be comprised of one or two CRTR³ groups, connected by a tether, selected independently from groups that include CRTR³, CRTR*CRTR³, CRTR*CRTR³, CRTR*O and CRTR*NRT:

The dotted line indicates the presence of either a single or double bond;

B is NR?:

Gis SR7.

In a particular embodiment of the present invention, the compounds of the formula (VI) are the following species:

R^1 R^2 R^5											
R ³ (VI)											
G	В	R,	\mathbb{R}^2	R³	R ⁴	R5	R				
OH	0	Me	Н	Н	H	Me	Me				
OH	0	i-Pr	H	Н	Н	Me	Me				
OH	0	Ph	H	Н	Н	Me	Me				
OH	0	Me	Me	H	H	Mo	Me				
OH	0	í-Pr	Me	H	H	Me	Me				
OH	0	Ph	Me	Н	Н	Me	Me				
OH	0	Me	H	Me	H	Me	Me				
OH	0	í-Pr	Ħ	Me	H	Mo	Me				
OH	0	Ph	H	Me	H	Me	Me				
OH	0	Me	Н	Н	Me	Me	Me				
OH	Ö	i-Pr	Н	Н	Me	Me	Mc				
OH	O	Ph	H	н	Me	Me	Me				
ОН	ō	Me	Н	CH ₂ Ph	H	Me	Me				
OH	0	í-Pr	Н	CH₂Ph	H	Me	Me				
OH	0	Ph	Н	CH ₂ Ph	н	Me	Me				
OH	CH ₂	Me	Н	Н	H	Me	Me				
OH	CH ₂	i-Pr	н	Н	H	Me	Me				

	R	Ĭ	J.R.	R ⁶			
		R	.3		(VI)	
G	8	R1	R²	R³	R4	R ⁵	R
OH	CH ₂	Ph	H	H	H	Me	Me
OH	CH ₂	Me	Me	Н	Н	Me	Me
ОН	CH ₂	i-Pr	Me	Н	H	Me	Me
ОН	CH ₂	Ph	Me	н	Н	Me	Me
OH	CH ₂	Me	H	Me	H	Me	Me
ОН	CH₂	<i>i-</i> Pr	H	Me	H	Me	Me
OH	CH ₂	Ph	H	Me	H	Me	Me
OH	CH ₂	Me	H	H	Ме	Me	Me
ОН	CH ₂	i-Pr	-H	H	Me	Me	Me
OH	CH ₂	Ph	Ħ	Н	Me	Me	Me
OH	CH ₂	Me	Н	CH ₂ Ph	H	Me	Me
OH	CH ₂	i-Pr	H	CH₃Ph	H	Me	Me
OH	CH ₂	Ph	H	CH ₂ Ph	H	Me	Me

In a sub-embodiment, a structure of the formula (VII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

R1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, balide,

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a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 ($X=O,NR^8$ or S).

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X=0, NR^3 or S).

R₁ and R₂, R₂ and R₃, R₃ and R₄, R₄ and R₅ and R₅ and R₆ can also each be comprised of one or two CR₇R₈ groups, connected by a tether, selected independently from groups that include CR₇R₈, CR₇R₆CR₇R₆, CR₇=CR₆, CR₇R₈O and CR₇R₈NR₇.

The dotted line indicates the presence of either a single or double bond;

B is selected from the groups that include CR7R8, O, S or NR7;

A is selected from the groups that include O, NR7 or S.

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In another sub-embodiment, a structure of the formula (VII) is given wherein the compound or its pharmaceutically acceptable salts or produce is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S).

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogeu, alkyi, alkenyi, alkynyi, cycloalkyi, cycloalkenyi, aryl, alkaryi, arylalkyi, heterocyclic, sulfonyi, sulfamyi, sulfamyi, sulfamonyi, carboxylic acid, amide, nitro, cyano, azide, phosphonyi, phosphinyi, phosphoryi, phosphine, carbamate, ester, alkoarbonyi, carbonyi, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

 R_1 and R_2 , R_2 and R_3 , R_3 and R_4 , R_4 and R_5 and R_5 and R_6 can also each be comprised of one or two CR_7R_8 groups, connected by a tether, selected

independently from groups that include CR₂R₈, CR₂R₈CR₇R₈, CR₂=CR₃, CR₂R₈O and CR₂R₈NR₂; and

The dotted line indicates the presence of either a single or double bond;

B is O;

A is O.

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In another sub-embodiment, a structure of the formula (VII) is given wherein the compound or its pharmaceutically acceptable saits or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S).

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamenyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphonyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S).

 R_1 and R_2 , R_2 and R_3 , R_3 and R_4 , R_4 and R_5 and R_5 and R_6 can also each be comprised of one or two CR_7R_8 groups, connected by a tether, selected independently from groups that include CR_7R_8 , $CR_7R_8CR_7R_8$, $CR_7R_8CR_7$, $CR_7R_8CR_7$, and $CR_7R_8NR_7$.

The dotted line indicates the presence of either a single or double bond;

B is O:

A is NR7.

In another sub-embodiment, a structure of the formula (VII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S).

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyctic, sulfonyl, sulfanyl, sulfanonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or earbehydrate or XR^7 (X = O, NR^8 or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷; and

The dotted line indicates the presence of either a single or double bond;

B is O:

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A is S.

In another sub-embodiment, a structure of the formula (VII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or SL).

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 and R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X=0, NR^8 or S).

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 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^6 and R^6 can also each be comprised of one or two CR^7R^8 groups, connected by a tether, selected independently from groups that include CR^7R^8 , $CR^7R^8CR^7R^8$, $CR^7=CR^8$, CR^7R^8O and $CR^7R^8NR^7$.

The dotted line indicates the presence of either a single or double bond;

B is CR⁷R⁸;

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A is O.

In another sub-embodiment, a structure of the formula (VII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyi, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylaikyl, heterocyclic, sulfonyl, sulfamyl, sulfamyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR₇R⁸, CR²=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷; and

The dotted line indicates the presence of either a single or double bond;

B is CR⁷R⁸;

A is NR7.

In another sub-embodiment, a structure of the formula (VII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 \mathbb{R}^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or $X\mathbb{R}^7$ (X = O, $N\mathbb{R}^8$ or S);

R², R³, R⁴, R⁵, R⁶, R⁷, R² are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² (X = O, NR⁸ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR²R⁸ groups, connected by a tether, selected independently from groups that include CR²R⁵, CR²R⁶CR²R⁸, CR²=CR⁸, CR²R⁶O and CR²R⁶NR²:

The dotted line indicates the presence of either a single or double bond;

B is CR7R8;

A is S.

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In another sub-embodiment, a structure of the formula (VII) is given wherein the compound or its pharmaceutically acceptable salis or prodrug is defined as follows:

 R^2 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

R₁ and R₂, R₂ and R₃, R₃ and R₄, R₄ and R₅ and R₅ and R₆ can also each be comprised of one or two CR₇R₈ groups, connected by a tether, selected independently from groups that include CR₇R₈, CR₇R₈CR₇R₈, CR₇=CR₈, CR₇R₈O and CR₇R₈NR₇;

The dotted line indicates the presence of either a single or double bond;

B is S:

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A is O.

In another sub-embodiment, a structure of the formula (VII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^{ξ} is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^{γ} (X = O, NR^{ξ} or S):

R², R³, R⁴, R⁵, R⁵, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, pliosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR²R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁶O and CR⁷R⁶NR⁷:

The dotted line indicates the presence of either a single or double bond;

B is S:

A is NR7.

In another sub-embodiment, a structure of the formula (VII) is given wherein the compound or its phannaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or SI:

R², R³, R⁶, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogea, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfanonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O. NR⁸ or S):

 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^5 and R^6 can also each be comprised of one or two CR^7R^8 groups, connected by a tether, selected independently from groups that include CR^7R^8 , $CR^7R^8CR^7R^8$, $CR^7=CR^5$, CR^7R^8O and $CR^7R^8NR^7$:

The dotted line indicates the presence of either a single or double bond;

B is S:

A is S.

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In another sub-embodiment, a structure of the formula (VII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfaryl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester,

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alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁵R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

The dotted line indicates the presence of either a single or double bond;

B is NR7;

A is O.

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In another sub-embodiment, a structure of the formula (VII) is given wherein the compound or its phannaceutically acceptable salts or prodrug is defined as follows:

 R^{1} is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^{7} (X = O, NR^{8} or S):

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^2 (X = 0, NR^8 or S):

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR²R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

The dotted line indicates the presence of either a single or double bond;

B is NR7:

A is NR7.

In another sub-embodiment, a structure of the formula (VII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbonydrate or XR⁷ (X = O, NR⁸ or S):

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷;

The dotted line indicates the presence of either a single or double bond;

B is NR7;

20 A is S.

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In a particular embodiment of the present invention, the compounds of the formula (VII) are the following species:

	R ¹ R ⁶ R ⁵ R ⁵										
R ³ (VII)											
A	В	R'	R²	R ³	R*	\mathbb{R}^{S}	\mathbb{R}^6				
0	0	Me	н	H	Н	Me	Me				
0	0	i-Pr	Н	Н	H	Me	Me				
0	0	Ph	Н	H	H	Me	Me				
0	0	Mo	Me	н	H	Me	Me				
0	0	i-Pr	Me	н	Н	Me	Me				
0	0	Ph	Me	Н	Н	Mc	Me				
0	0	Me	Н	Me	H	Me	Me				
0	0	i-Pr	H	Me	H	Me	Me				
0	0	Ph	H	Me	Н	Me	Me				
0	0	Me	H	H	Me	Me	Me				
o	0	i-Pr	H	H	Me	Me	Me				
0	0	Ph	H	Н	Me	Me	Me				
О	0	Me	Н	CH ₂ Ph	H	Me	Me				
0	0	1-Pr	H	CH ₂ Ph	H	Me	Me				
0	0	Ph	H	CH ₂ Ph	Н	Me	Me				
0	CH ₂	Me	H	Н	H	Me	Me				
O	CH ₂	/-Pr	H	H	H	Me	Me				

		2	Y.	<r<sup>5</r<sup>			
	A.		₹3		(VI	1)	
A	В	R	R ²	R ³	R	R°	R
0	CH ₂	Ph	Н	H	H	Me	Me
0	CH ₂	Me	Me	H	H	Me	Me
0	CH ₂	i-Pr	Me	H	H	Me	Me
0	CH ₂	Ph	Me	н	H	Me	Me
ō	CH ₂	Me	н	Me	H	Me	Me
0	CH ₂	í-Pr	H	Me	H	Me	Me
ō	CH ₂	Ph	Н	Me	H	Me	Me
o	CH ₂	Me	Н	Н	Me	Me	Me
o	CH ₂	<i>i</i> -Pr	H	Н	Me	Me	Me
O	CH ₂	Ph	H	H	Me	Me	Me
0	CH ₂	Me	Ħ	CH ₂ Ph	H	Me	Me
ō	CH ₂	i-Pr	н	CH ₂ Ph	H	Me	Me
0	CH ₂	Ph	н	CH₂Ph	H	Me	Me

In a sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

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R¹ is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide,

a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S).

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfanonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S).

R₁ and R₂, R₂ and R₃, R₃ and R₄, R₄ and R₅ and R₅ and R₆ can also each be comprised of one or two CR₇R₈ groups, connected by a tether, selected independently from groups that include CR₇R₈, CR₇R₆CR₅R₈, CR₇=CR₆, CR₇R₆C and CR₇R₈NR₇.

E and B are selected from the groups that include CR7R2, O, S or NR7;

G is selected from the groups that include OR7, NR7R8 or SR7.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its phermaceutically acceptable salts or produce are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S).

 \mathbb{R}^2 ,

R², R³, R⁴, R⁵, R⁶, R, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² (X = O, NR⁸ or S);

 R_1 and R_2 , R_2 and R_3 , R_3 and R_4 , R_4 and R_5 and R_5 and R_6 can also each be comprised of one or two CR_7R_8 groups, connected by a tether, selected

independently from groups that include CR₇R₈, CR₇R₈CR₇R₈, CR₇=CR₅, CR₇R₈O and CR₇R₈NR₅; and

B = O, E = O and $G = OR^7$.

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5 In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmacentically acceptable salts or prodrug are defined as follows:

> R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S).

> R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfamonyl, carboxytic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbahydrate or KR⁷ (X = O, NR⁸ or S).

> R_1 and R_2 , R_3 and R_3 , R_3 and R_4 , R_4 and R_5 and R_5 and R_6 can also each be comprised of one or two CR_7R_8 groups, connected by a tether, selected independently from groups that include CR_7R_8 , $CR_7R_8CR_7R_8$, $CR_7=CR_8$, $CR_7R_8CR_7R_8$.

B = O, $E = NR^8$ and $G = OR^7$.

In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

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 \mathbb{R}^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrute or $X\mathbb{R}^7$ (X=O, $N\mathbb{R}^8$ or S).

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfamyl, sulfamyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^5 and R^6 can also each be comprised of one or two CR^7R^8 groups, connected by a tether, selected independently from groups that include CR^7R^8 , $CR^7R^8CR^7R^2$, $CR^7=CR^8$, CR^7R^8O and $CR^7R^8NR^7$; and

B = O, $R = CR^7R^8$, and $G = OR^7$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S).

R², R³, R⁴, R⁵, R⁶, R⁷ and R⁸ are selected independently from the groups that include hydrogen, afkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfanyl, sulfanyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkoarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² (X = O, NR⁸ or S).

 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^5 can also each be comprised of one or two CR^7R^8 groups, connected by a tether, selected independently from groups that include CR^3R^8 , $CR^7R^8CR^3R^8$, $CR^7=CR^8$, CR^7R^8O and $CR^7R^8NR^7$.

B = O, E = S and $G = OR^7$.

In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or produig are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 ($X = O_r NR^8$ or S):

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S):

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁵ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁶CR₇R⁸, CR⁷=CR⁸, CR⁷R⁶O and CR⁷R⁶NR⁷; and

B = O, E = O and $G = NR^7R^8$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

> R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfarnonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

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R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR²R⁶ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR²R²CR⁷R⁸, CR²=CR⁸, CR⁷R⁶O and CR²R⁸NR²:

B = O, $E = NR^8$ and $G = NR^7R^8$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or produig are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocychic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

 R_3 and R_2 , R_2 and R_3 , R_3 and R_4 , R_4 and R_5 and R_5 and R_6 can also each be comprised of one or two CR_7R_8 groups, connected by a tether, selected independently from groups that include CR_7R_6 , $CR_7R_8CR_7R_8$, $CR_7=CR_8$, CR_7R_8C and $CR_7R_8NR_7$;

B = O, $E = CR^7R^8$ and $G = NR^7R^8$.

In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or Sk

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = 0, NR^8 or S):

R₁ and R₂, R₂ and R₃, R₃ and R₄, R₄ and R₅ and R₅ and R₆ can also each be comprised of one or two CR₇R₈ groups, connected by a tether, selected independently from groups that include CR₇R₈, CR₇R₆CR₇R₈, CR₇=CR₈, CR₇R₈O and CR₂R₆NR₇:

B = O, E = S and $G = NR^7R^8$.

In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfanyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, cster, alkeerbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = Q, NR⁸ or S);

 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^5 and R^6 can also each be comprised of one or two CR^7R^8 groups, connected by a tether, selected independently from groups that include CR^7R^8 , $CR^7R^8CR^7R^8$, $CR^7=CR^8$, CR^7R^8O and $CR^7R^8NR^7$;

 $B = CR^7R^8$, B = O and $G = OR^7$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfanonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbonylate or XR^7 (X=O, NR^8 or S);

 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^5 and R^6 can also each be comprised of one or two CR^7R^8 groups, connected by a tether, selected independently from groups that include CR^7R^8 , $CR^7R^8CR^7R^8$, $CR^7=CR^8$, CR^7R^8O and $CR^7R^8NR^7$:

 $R = CR^7R^8$, $E = NR^8$ and $G = OR^7$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfamyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X=0, NR^8 or S):

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

 $B = CR^7R^8$, $E = CR^7R^8$ and $G = OR^7$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its phermaceutically acceptable salts or prodrug are defined as follows:

R¹ is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or Sh.

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² (X = O, NR⁸ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁶O and CR⁷R⁶NR⁷:

 $B = CR^7R^8$, E = S, and $G = OR^7$.

In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^{2} is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^{7} (X = O, NR^{8} or S);

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁵ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

 $B = CR^3R^8$, E = O and $G = NR^7R^8$.

In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² (X = O, NR⁸ or S):

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR²R⁸ groups, connected by a tether, selected independently from groups that include CR²R⁸, CR²R⁸CR⁴R⁸, CR²=CR⁸, CR²R⁸O and CR²R⁸NR²;

 $B = CR^7R^8$, $E = NR^8$ and $G = NR^7R^8$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmacentically acceptable salts or produig are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkuryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

R¹ and R², R² and R³, R² and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

 $B = CR^7R^8$, $E = CR^7R^8$ and $G = NR^7R^8$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the 20 compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyi, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR^TR⁸ groups, connected by a tether, selected independently from groups that include CR^TR⁴, CR^TR⁶CR^TR⁸, CR^T--CR⁸, CR^TR⁸O and CR^TR⁸NR⁷:

 $B = CR^7R^8$, E = S and $G = NR^7R^8$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R², R³, R⁴, R⁵, R⁶, R⁷, R⁶ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁶ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷;

B = S, E = O and $G = OR^7$.

In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

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 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or SR).

 \mathbb{R}^2 , \mathbb{R}^3 , \mathbb{R}^4 , \mathbb{R}^5 , \mathbb{R}^6 , \mathbb{R}^7 , \mathbb{R}^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or $X\mathbb{R}^7$ (X=0, $N\mathbb{R}^6$ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR²R⁸ groups, connected by a tether, selected independently from groups that include CR²R³, CR²R²CR³R, CR²=CR³, CR²R⁸O and CR²R³NR⁷;

B = S, $E = NR^3$ and $G = OR^7$.

In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = 0, NR^8 or S).

R², R³, R⁴, R⁵, R⁵, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylaikyl, heterocyclic, sulfonyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^5 and R^6 can also each be comprised of one or two CR^2R^8 groups, connected by a tether, selected independently from groups that include CR^7R^8 , $CR^7R^8CR^7R^8$, $CR^7=CR^8$, CR^7R^8O and $CR^7R^8NR^7$;

 $B = S_x B = CR^7 R^8$ and $G = OR^7$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or produig are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkearbonyl, carboryl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ oan also each be comprised of one or two CR²R⁸ groups, connected by a tether, selected independently from groups that include CR²R³, CR⁷R⁵CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

B = S, E = S, and $G = OR^7$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkanyl, arylalkyl, heterocyclic, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, cster, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X=0, NR^8 or S);

'R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁵ can also each be comprised of one or two CR¹R⁵ groups, connected by a tether, selected independently from groups that include CR¹R⁵, CR²R⁵CR¹R⁵, CR²-=CR⁵, CR²R⁵O and CR²R⁵NR²:

B = S, E = O and $G = NR^7R^8$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^{1} is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^{7} (X = O, NR^{8} or S):

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X=0, NR^8 or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R³, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

B = S, $E = NR^8$ and $G = NR^7R^8$.

In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or SR:

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, eetcr, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbotydrate or XR⁷ (X = O. NR⁸ or S).

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR²R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

B = S, $E = CR^7R^8$ and $G = NR^7R^8$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or produig are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷;

B = S, E = S and $G = NR^7R^8$.

In another sub-embodiment, a sincture of the formula (VIII) is given wherein the commound or its pharmaceutically acceptable salts or produig are defined as follows:

 R^{1} is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^{7} (X = O, NR^{8} or S);

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylaikyl, heterocyclic, sulfonyl, sulfanyl, sulfanonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbonydrate or XR⁷ (X = O, NR⁸ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR²R⁸ groups, connected by a tether, selected independently from groups that include CR²R⁸, CR²R⁸CR³R⁸, CR²=CR⁸, CR⁷R⁸O and CR²R⁸NR²:

 $B = NR^7$, E = O and $G = OR^7$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 \mathbb{R}^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or \mathbb{XR}^2 (X = O, \mathbb{NR}^8 or S):

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, aikynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylakyl, heterocyclic, sulfonyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbomate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X=O, NR^8 or S):

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R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷—CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷;

 $B = NR^7$, $E = NR^8$ and $G = OR^7$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^5 and R^6 can also each be comprised of one or two CR^7R^8 groups, connected by a tether, selected independently from groups that include CR^7R^8 , $CR^2R^8CR^7R^8$, $CR^7=CR^8$, CR^7R^8O and $CR^7R^8NR^7$;

 $B = NR^7$, $E = CR^7R^8$ and $G = OR^7$.

In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbonydrate or XR^2 (X = O, NR^8 or S);

 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^5 and R^6 can also each be comprised of one or two CR^2R^8 groups, connected by a tether, selected independently from groups that include CR^2R^8 , $CR^7R^8CR^7R^8$, $CR^7=CR^8$, CR^7R^8O and $CR^2R^5NR^7$;

 $B = NR^7$, E = S, and $G = OR^7$.

In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmacentically acceptable salts or prodrug are defined as follows:

R¹ is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkuryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^5 and R^6 can also each be comprised of one or two CR^7R^8 groups, connected by a tether, selected independently from groups that include CR^7R^8 , $CR^7R^8CR^7R^8$, $CR^7=CR^8$, CR^7R^6O and $CR^7R^6NR^7$;

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 $B = NR^7$, E = 0 and $G = NR^7R^8$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyche, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

 R^2 , R^3 , R^4 , R^5 , R^5 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R¹ and R², R² and R², R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR²R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

 $B = NR^7$, $E = NR^8$ and $G = NR^7R^8$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable salts or prodrug are defined as follows:

 R^{I} is selected independently from the groups that include hydrogen, alky), cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^{7} (X = O, NR^{8} or S):

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfamyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷;

 $B = NR^7$, $E = CR^7R^8$ and $G = NR^7R^8$.

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In another sub-embodiment, a structure of the formula (VIII) is given wherein the compound or its pharmaceutically acceptable saits or prodrug are defined as follows:

R¹ is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^6 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^6 or S):

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR²=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

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 $B = NR^7$, E = S and $G = NR^7R^8$.

In a particular embodiment of the present invention, the compounds of the formula (VIII) are the following species:

			1	\searrow^{R^6}				
		E R ²	R ³	R ⁴	Ó	/III)		
G	В	E	R'	R ²	R ³	R4	R ^s	R
OH	0	0	Me	H	н	H	Me	Me
OH	0	0	i-Pr	H	H	Н	Мо	Me
OH	0	0	Ph	H	Н	H	Me	Me
ОН	0	0	Me	Me	H	H	Me	Me
OFI	0	0	i-Pr	Me	H	H	Me	Me
OH	0	0	Ph	Me	H	H	Me	Me
OH	0	O	Me	Н	Me	H	Me	Me
OH	0	0	i-Pr	Н	Me	Н	Me	Me
ОН	0	0	Ph	H	Me	Н	Me	Me
OH	O	0	Me	Н	Н	Me	Me	Me
OH	0	0	i-Pr	H	H	Me	Me	Me
OH	0	0	Ph	Н	H	Me	Me	Me
ОН	0	0	Me	н	CH₂Ph	H	Me	Me
OH	0	0	í-Pr	Н	CH ₂ Ph	н	Me	Me
ОН	0	0	Ph	Н	CH ₂ Ph	Н	Me	Me
OH	CH ₂	0	Me	H	H	H	Me	Me
OH	CH ₂	0	í-Pr	Н	П	H	Me	Me

		R^1 E R^2	Y	R^{5}		***************************************				
	K. K.					(VIII)				
G	В	E	R¹	R ²	R,	R ⁴	R ⁵	Ro		
OH	CH ₂	0	Pb	H	H	н	Me	Me		
OH	CH ₂	0	Me	Me	H	H	Me	Me		
OH	CH ₂	0	i-Pr	Me	H.	Н	Me	Me		
OH	CH ₂	0	Ph	Me	H	H	Me	Me		
OH	CH ₂	0	Me	H	Me	н	Me	Me		
OH	CH ₂	0	i-Pr	H	Me	H	Me	Me		
OH	CH ₂	0	Ph	Н	Me	H	Me	Me		
OH	CH ₂	0	Me	Н	H	Me	Me	Me		
OH	CH ₂	0	/-Pr	H	Н	Me	Me	Me		
OH	CH₂	0	Ph	H	н	Me	Me	Me		
OH	CH ₂	0	Me	H	CH ₂ Ph	H	Me	Me		
OH	CH ₂	0	i-Pr	H	CH ₂ Ph	H	Me	Me		
OH	CH ₂	0	Ph	H	CH ₂ Ph	H	Me	Me		
OH	0	CH ₂	Me	H	H	H	Me	Me		
OH	0	CH ₂	i-Pr	Н	Н	H	Me	Me		
OH	0	CH ₂	Ph	H	H	H	Me	Me		
OH	0	CH ₂	Me	Me	Н	н	Me	Me		
OH	0	CH ₂	i-Pr	Me	H	H	Me	Me		
OH	0	CH ₂	Ph	Ме	H	H	Me	Me		

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$									
	R ³			(VIII)					
G	В	E	R¹	R	R,	R ⁴	R	R	
OH	0	CH ₂	Me	H	Me	Ħ	Me	Me	
ОН	0	CH ₂	i-Pr	H	Me	H	Me	Me	
OH	0	CH ₂	Ph	Н	Me	H	Me	Me	
OH	0	CH ₂	Me	Н	Н	Me	Me	Me	
ОН	0	CH₂	<i>i-</i> Pr	н	Н	Me	Me	Me	
ЮН	0	CH ₂	Ph	H	H	Me	Me	Me	
OH	0	CH ₂	Me	H	CH ₂ Ph	H	Me	Me	
OН	0	CH ₂	i-Pr	H	CH₂Ph	H	Me	Me	
OH	0	CH ₂	Ph	H	CH₂Ph	H	Ме	Me	

In a sub-embodiment, a structure of the formula (IX) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

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 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = 0, NR^8 or S).

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester,

alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S).

R₁ and R₂, R₂ and R₃, R₃ and R₄, R₄ and R₅ and R₅ and R₆ can also each be comprised of one or two CR₂R₈ groups, connected by a tether, selected independently from groups that include CR₇R₃, CR₇R₆CR₇R₈, CR₇mCR₈, CR₇R₈O and CR₇R₈NR₇.

The dotted line indicates the presence of either a single or double bond;

E is selected from the groups that include CR7R8, O, S or NR7;

G is selected from the groups that include OR7, NR7R8 or SR7.

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In another sub-embodiment, a structure of the formula (IX) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S).

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² (X = O, NR⁸ or S);

R₁ and R₂, R₂ and R₃, R₃ and R₄, R₄ and R₅ and R₅ and R₆ can also each be comprised of one or two CR₇R₈ groups, connected by a tether, selected independently from groups that include CR₇R₈, CR₇R₈CR₇R₈, CR₇=CR₈, CR₇R₈O and CR₇R₈NR₇; and

The dotted fine indicates the presence of either a single or double bond;

E is O:

G is OR7.

In another sub-embodiment, a structure of the formula (IX) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S).

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfinyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, helide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S).

R₁ and R₂, R₂ and R₃, R₃ and R₄, R₄ and R₅ and R₅ and R₆ can also each be comprised of one or two CR₇R₈ groups, connected by a tether, selected independently from groups that include CR₇R₆, CR₇R₆CR₇R₆, CR₇=CR₅, CR₇R₆O and CR₇R₈NR₇.

The dotted line indicates the presence of either a single or double bond;

E is O:

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Gis NR7R8.

In another sub-embodiment, a structure of the formula (IX) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 \mathbb{R}^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or $X\mathbb{R}^7$ (X=0, $N\mathbb{R}^8$ or S).

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl,

heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphinyl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁶O and CR⁷R⁸NR⁷; and

The dotted line indicates the presence of either a single or double bond;

E is O;

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G is SR7.

In another sub-embodiment, a structure of the formula (IX) is given wherein the compound or its pharmaceutically acceptable salts or produce is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S).

 R^2 , R^4 , R^5 , R^6 , R^7 and R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X=0, NR^8 or S).

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR²R⁸ groups, connected by a tether, selected independently from groups that include CR²R⁸, CR²R⁸CR¹R⁸, CR²=CR⁸, CR²R⁸O and CR²R⁸NR⁷.

The dotted line indicates the presence of either a single or double bond;

E is CR7R8;

GOR7.

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In another sub-embodiment, a structure of the formula (IX) is given wherein the compound or its pharmaceutically acceptable salts or product is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, afkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R², R³, R⁴, R⁵, R⁵, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfannonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkearbonyl, carbonyl, balide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^5 and R^6 can also each be comprised of one or two CR^7R^8 groups, connected by a tether, selected independently from groups that include CR^7R^8 , $CR^7R^8CR_7R^8$, $CR^7=CR^3$, CR^7R^8O and $CR^7R^8NR^7$; and

The dotted line indicates the presence of either a single or double bond;

20 E is CR⁷R⁸;

G is NR7R8.

In another sub-embodiment, a structure of the formula (IX) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 \mathbb{R}^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or $X\mathbb{R}^7$ (X = O, $N\mathbb{R}^8$ or S);

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbobydrate or XR⁷ (X = O, NR⁸ or S);

R¹ and R², R² and R³, R² and R⁴, R⁴ and R⁵ and R⁵ and R⁵ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁶CR⁷R⁸, CR⁷—CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

The dotted line indicates the presence of either a single or double bond;

B is CR7R8;

G is SR7.

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In another sub-embodiment, a structure of the formula (IX) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR⁷ (X = O, NR⁸ or S);

R₁ and R₂, R₂ and R₃, R₃ and R₄, R₄ and R₅ and R₅ and R₆ can also each be comprised of one or two CR₇R₈ groups, connected by a tether, selected independently from groups that include CR₇R₈, CR₇R₆CR₇R₆, CR₇^mCR₈, CR₇R₈O and CR₇R₈NR₇:

The dotted line indicates the presence of either a single or double bond;

E is S:

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G is OR^7 .

In another sub-embodiment, a structure of the formula (IX) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 R^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S);

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphoryl, phosphine, carbamate, ester, alkoarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² (X = O, NR⁸ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁴ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁵CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷:

The dotted line indicates the presence of either a single or double bond;

B is S;

G is NR7R8.

In another sub-embodiment, a structure of the formula (IX) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

R¹ is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkoarbonyl, carbonyl, halide,

a residue of a natural or synthetic amino acid, or carbohydrate or XR^7 (X = O, NR^8 or S):

R², R³, R⁴, R⁵, R⁶, R⁷, R⁸ are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphine, carbamate, ester, alkearbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or XR² (X = O, NR⁸ or S);

R¹ and R², R² and R³, R³ and R⁴, R⁸ and R⁵ and R⁵ and R⁶ can also each be comprised of one or two CR⁷R⁸ groups, connected by a tether, selected independently from groups that include CR⁷R⁸, CR⁷R⁸CR⁷R⁸, CR⁷=CR⁸, CR⁷R⁸O and CR⁷R⁸NR⁷;

The dotted line indicates the presence of either a single or double bond;

B is S:

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G is SR7.

In another sub-embodiment, a structure of the formula (IX) is given wherein the compound or its pharmaceutically acceptable salts or prodrug is defined as follows:

 \mathbb{R}^1 is selected independently from the groups that include hydrogen, alkyl, cycloalkyl, aryl, alkaryl, arylalkyl, heterocyclic, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or carbohydrate or $X\mathbb{R}^7$ (X = O, $N\mathbb{R}^8$ or S);

 R^2 , R^3 , R^4 , R^5 , R^6 , R^7 , R^8 are selected independently from the groups that include hydrogen, alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkenyl, aryl, alkaryl, arylalkyl, heterocyclic, sulfonyl, sulfanyl, sulfanyl, sulfamonyl, carboxylic acid, amide, nitro, cyano, azide, phosphonyl, phosphinyl, phosphiny, phosphine, carbamate, ester, alkcarbonyl, carbonyl, halide, a residue of a natural or synthetic amino acid, or earbohydrate or XR^7 (X = O, NR^8 or S);

 R^1 and R^2 , R^2 and R^3 , R^3 and R^4 , R^4 and R^5 and R^5 and R^6 can also each be comprised of one or two CR^7R^8 groups, connected by a tether, selected